ED 055 618   LI 003 172

AUTHOR   Roth, Harold L.; And Others
TITLE   Centralized Processing for Indiana Libraries.
INSTITUTION   Indiana State Library, Indianapolis.
PUB DATE   Jun 71
NOTE   56p.; (4 References); Indiana Library Studies, Report
              13

EDRS PRICE   MF-$0.65 HC-$3.29
DESCRIPTORS   Cataloging; *Centralization; *Library Cooperation;
              *Library Networks; *Library Planning; Library
              Services; *Library Technical Processes
IDENTIFIERS   Centralized Processing; *Indiana

ABSTRACT
        Recommendations are made for further centralization
of cataloging and processing for libraries in Indiana. The eventual
goal would be to offer such services to all types of libraries in the
state, with the exception of special libraries and large university
libraries, from several (three to four) regional area processing
centers. These in turn would be provided with all cataloging
information from one center. The suggested steps for implementation
include: (1) Appointment of a Technical Services Advisory Council;
(2) Development of standards for cataloging and processing of
juvenile materials; (3) Development of a financial pattern for center
establishment and maintenance; (4) Choice of a center, development of
routines, solicitation of members; (5) Initial production for current
juvenile titles; (6) Establishment of cycle ordering procedures for
retrospective titles; and (7) Issuance of acquisitions lists as
selection aids, especially for nonbook media. (The other 18 volumes
in this series of Indiana Libraries Studies are available as ED
044131 through 044145 and ED 046472 through 046474) (Author/NH)

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Report Number 13

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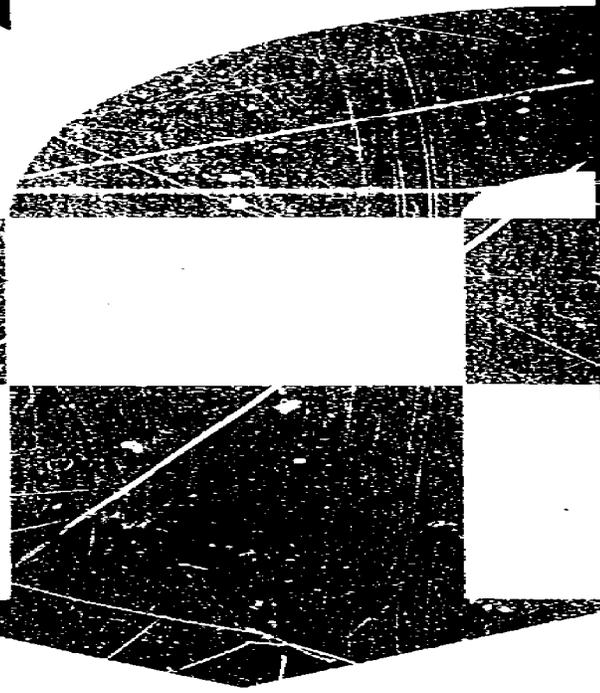
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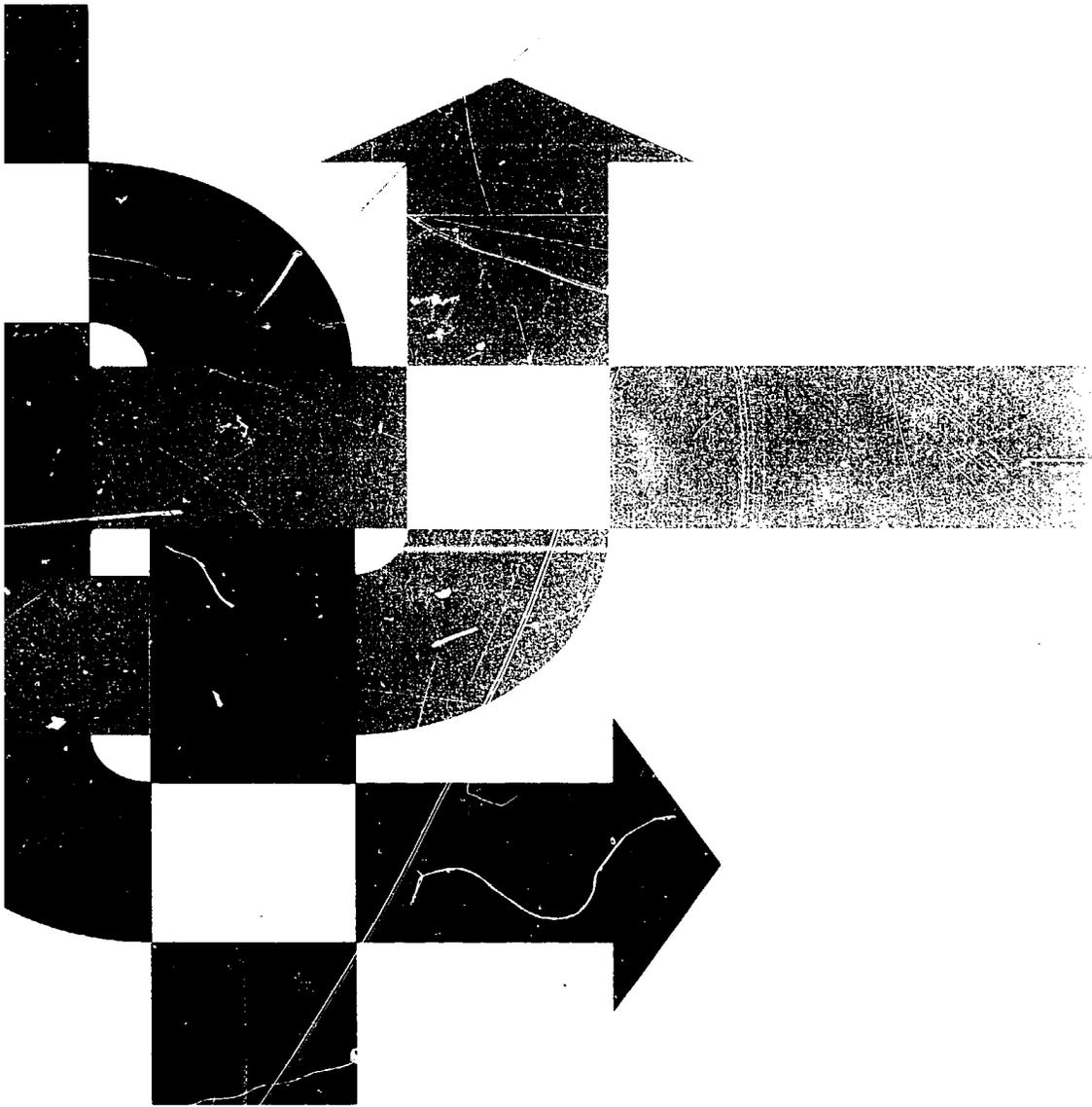
BRARY STUDIES

essing for Indiana Libraries

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The Indiana Library Studies

The Indiana Library Studies represent the first statewide exploration of Indiana libraries of all types and of the library and information needs of Indiana's citizens. A federally funded research project of the Indiana State Library, the Studies are directed by Dr. Peter Hiatt, Consultant to the Indiana State Library and Associate Professor of Indiana University's Graduate Library School. Guidance for the project and advice on the reports have been provided by the Indiana Library Studies Advisory Committee:

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Indiana Library and Historical Board
Indiana Library Association
Indiana Library Trustees Association
Indiana School Librarians Association
College and University Roundtable of the Indiana Library Association
Special Libraries Association, Indiana Chapter

Cover design by Michael Smith

Report Number Thirteen

of the

Indiana Library Studies

Peter Hiatt
Director and General Editor

CENTRALIZED PROCESSING FOR INDIANA LIBRARIES

by

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Prepared June, 1971

Bloomington, Indiana

1971

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ABSTRACT AND SUMMARY OF RECOMMENDATIONS

This report basically recommends further centralization of cata-
loging and processing for libraries in Indiana. The eventual goal would
be to offer such services to all types of libraries in the state, with
the exception of special libraries and large university libraries, from
several (three to four) regional area processing centers. These in turn
would be provided with all cataloging information from one center.

The implementation steps recommended should be undertaken gradually.
The first step is the appointment of an Advisory Council to set processing
and cataloging standards, initially for juvenile materials only. Then
a prototype center, probably based on the existing Crawfordsville center,
should offer cataloging and processing of all types of juvenile materials
to area school and public libraries. The center would begin with current
ordering and then, almost immediately, offer a cycle system for retro-
spective ordering of all juvenile titles in print. It should build a
data base and create selection assistance aids for all juvenile materials.
Of especial importance would be the listing of non-book media, as such a
list would provide valuable assistance in the selection of these materials
almost immediately.

State aid will be required for the establishment and for continuing
subsidy of the centers. Eventually they should become self-supporting for
basic cataloging and processing operations and for some other phases of
their activities. They should continue to receive assistance from the
state for some services, for developmental work, and for special projects.
Participating libraries should be involved from the beginning in the

development of truly adequate interlibrary loan provision. Partici-
pating libraries must be required to accept without deviation the stand-
ardized set of cataloging and processing patterns to be set by the
Advisory Council with the advice and concurrence of the Indiana Library
Association and the Indiana School Librarians Association, and should be
actively discouraged from making any changes. Widespread participation
in policy determination for the centers should be encouraged.

Other area centers may be set up as the first becomes securely
established, but must follow exactly the same standardized patterns,
and use cataloging copy from the main center.

State aid should be primarily devoted to serving as an incentive
for this centralized processing pattern, to encouragement of effective
interlibrary loan and the development of the necessary bibliographic and
administrative tools for this, to production of selection aids and
specialized bibliographic and indexing tools by the centers, and to
establishment and implementation of a state-wide borrower's card.

Neither teletype nor facsimile networks are advised. Rather, the
use of the telephone is encouraged and the primary network need is seen
as a need to motivate librarians to want to provide service to readers.
State aid should be devoted in this area to encouraging and compensating
lenders and to discouraging libraries from abusing the system by relying
on it for titles which should be purchased locally. Every effort should
be made to accomplish this without discouraging or penalizing individual
users.

No grandiose, overall, whole-system, state-wide computer-based system
is advisable at this time. The Indiana State Library should, however, be
sure that there is continuing exploration of and experimentation with the

MARC tapes of the Library of Congress. Experimentation of a small scale
with housekeeping tasks (ordering is suggested as an initial area) on the
part of the center is to be encouraged. It is important to provide for
the gradual building of local competence and experience in systems design
and in programming. Experimentation should be continuous but should
minimize capital investment, especially before a subsystem has been proven
to be workable. Each new subsystem should be immediately useful and
economically justifiable in itself. New servces for member libraries or
the public should be a basic aim. Such services might include: classed
accessions lists (with author and title indexes) as loan and selection
aids, establishment and expansion of union lists, and active and selective
dissemination of information along the lines suggested by the experiment
at Crawfordsville by Davis and Hiatt.

The overall pattern suggested is to have each successive step offer
immediately visible pay-off in the form of new or better services to
users or to member libraries, to have each new step be economical,
and to minimize capital investment until a new system is actually
operational.

The immediate achievements of the first center efforts under this plan
should include encouragement of year-round ordering in school libraries;
higher average quality of cataloging and processing for new member libraries,
particularly for non-book media; establishment of the basis for a truly
state-wide cataloging and processing standard; and encouragement of inter-
library loan service on a substantial scale for users of member libraries.

Eventually, centers should establish exhibit collections of juvenile
titles for selection purposes for member libraries, and encourage and pro-
vide for member library committee production of selection aids. Centers

should publish lists and other materials and aggressively encourage new services. No center should expand its services beyond juvenile materials until coverage is essentially complete in this area, including development of new and innovative services. Consideration, in this regard, should be given to providing material on education for teachers, and to search, bibliographic, and Xeroxing services like those of the Toronto School Board and the Levittown (Long Island) and Calgary (Alberta) public libraries. Other specific examples of useful innovative services are given in the body of the report.

Centers should be considerably more than processing agencies. They should serve as basic agencies within the state to give unity to library service, particularly for young people and the general public. They should encourage self-education and the exchange of information for librarians in member libraries, and should function as general bibliographic and service centers for member libraries and the public. Successful inauguration and expansion of the centers on a planned, systematic basis should enable Indiana to overtake and surpass the efforts of states with more complex plans in providing service to the library's public.

CHAPTER I

INTRODUCTION

This report is one of the Indiana Library Studies series produced
under the general direction of Dr. Peter Hiatt. For this part of the
series we were asked by Dr. Hiatt to study the question of Indiana's
technical services, and to make recommendations which would increase
their contribution to the effectiveness of state-wide library service
in all types of libraries. In order to make the study as useful as
possible, it was further delimited to emphasize consideration of central-
ized cataloging and processing, and computer applications to technical
services. This emphasis was chosen because it was apparent that the
greatest current activities, concerns, and opportunities are in these
areas.

The term technical services is used generally to mean those library
operations involved in acquiring materials, cataloging them, and phys-
ically preparing them for use. Sometimes procedures for the preservation
and binding of materials and for circulating them to library users are in-
cluded in this list. These latter, however, are not considered in this
report in any detail except as they relate to acquisition and physical
processing.

It is obvious that the technical services operations described above
are basic to the provision of library service itself. They tend, too, to
be the parts of library work most susceptible to routinization, central-
ization, standardization, and mechanization. They are the parts of library
operations most amenable to cost effectiveness measures and procedures.

This also makes them the operations most suited to computer applications, although this must be said with reservations which are discussed more fully in the body of the report.

This report has been a difficult one to prepare; the primary problems being those of determining what to exclude rather than what to include. For example, thorough information on the Crawfordsville processing center, the processing center for the regional campuses of Indiana University, and on other operations within the state was gathered on fairly extensive visits by Dr. Theodore C. Hines and Mr. Hassan E. Hassan, and through the efforts of cooperating librarians. In addition, extensive visits have been made to processing centers or emerging cooperative, federated, or commercial centers elsewhere, including ANYLTS (Association of New York Libraries for Technical Services), the Montgomery County (Md.) public schools, Calgary (Alberta) public schools and various commercial firms such as Bro-Dart and Baker and Taylor. Most of the mass of data gathered both in this way, and through the extensive assistance of Indiana librarians and cooperating librarians elsewhere, has been synthesized to emphasize those aspects most applicable to current needs in Indiana, rather than simply recorded and presented.

The report expands in several ways on what would generally be considered as constituting the technical services, primarily in its brief consideration of interlibrary loan, and in its emphasis on the idea that technical services should include bibliographic, indexing, and similar operations which go well beyond conventional cataloging. We have also included brief but important discussion of the ways in which acquisitions procedures can positively encourage better opportunities for selection

and use of materials. We have introduced an emphasis on non-book media, or more properly perhaps, an emphasis on the concept, as often neglected in fact as embraced in theory, that a library should collect and use materials in all forms to meet the needs of its various clienteles.

Finally, the report includes both general and highly detailed specific recommendations. These are tailored, within the context of national developments and emerging technologies, to meet Indiana's problems and needs and to take advantage of the special opportunities offered by conditions in the state.

We are grateful indeed to Dr. Hiatt, himself a pioneer in the kinds of applications of technical services which we are advocating here, for the opportunity to do this study, for his patience and forbearance, and for his whole-hearted assistance. We are very grateful, too, to Mrs. Chilson Bishop, Dr. William Studor, and to all the other librarians in Indiana and throughout the U. S. and Canada, too numerous, unfortunately, to mention by name, who gave so willingly of their time, their information, their knowledge, and their insights.

We are convinced that the pioneering work of a number of organizations in Indiana provides a useful foundation, and that the time is right to build on it. The Indiana University Graduate Library School, the Crawfordsville center, Lake County, the Indiana University Regional Campus Libraries center, and others, all have done useful work and developed within the state a body of experience, and experienced people, which now may be exploited on a wider scale. In a sense, Indiana has already been following the general path recommended by this report, i.e., by starting small with manageable operations. While this policy may have resulted in

an appearance that the state as a whole has been slow to adopt new

methods, it has probably been a wise one, as the opportunity now exists

to avoid the mistakes others have made, to profit from their knowledge,

and to develop statewide leadership for centralized processing. We hope

that this report may contribute to that opportunity.

CHAPTER II

BACKGROUND

One function of a library, any type of library, is to provide the informational materials required to meet the needs of that library's community or communities. The community may be the research and teaching staff and the students of a college or university; the staff of an industrial concern; the children, administration, and teachers of a school system; or the state legislature; but the goal is to serve all members of that community, not merely those who currently use services. While a library must collect materials selected to meet anticipated need, it should certainly not be limited to its own collections or to the expertise of its own staff. Rather, it should function not simply as a primary service point, but also as a gateway to any information source which meets a user need. No collection, however great, can meet all of the information needs of its clientele, present and potential.

It should be expressly noted that no one library, even if it had unlimited funds, could successfully meet all of the needs of its clientele from the resources it could gather and service locally. Nor could it, unless it were an extremely large library, larger than any in Indiana, hope to be able to provide satisfactorily from its own resources for the bibliographic and cataloging access its clientele would need. Indeed, perhaps not even the Library of Congress could hope to do so.

Libraries, in Indiana as elsewhere, do not, in point of fact, have unlimited funds, but are, in terms of demonstrated needs, comparatively poorly supported.

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This underlines the need for cooperative effort to meet user needs. It is in the technical services, and in the use of their services, that cooperation can best both extend user service opportunities and lower unit costs. Paradoxically enough, perhaps, it is by demonstration that libraries can increase user services and minimize unit costs that they are most likely to gain increased support, public and private. It is certainly clear enough that, whether or not libraries achieve truly adequate levels of support in Indiana in the foreseeable future, every effort should be bent to achieve economic expenditure of funds.

It should be emphasized, too, that in the case of library technical services, cooperation among libraries is not simply necessary to minimize unit costs, but is required to achieve quality of service.

These ideas are not new to librarians. Avoiding the duplication of effort involved in many libraries' cataloging of the same books at approximately the same time was a concern of the first meetings of American librarians in 1854 and 1876. It was not only that cost and effort were to be saved by having the cataloging done only once, but that higher quality could be achieved both in that more time could then justifiably be spent in the intellectual work of cataloging each title, and that skilled, specialized staff could be employed.

While they are not usually considered as part of the sequence of development of library cooperation, two activities begun at the turn of the century both represent this trend and have important implications today.

Library of Congress Card Service

The first of these is the issuance of Library of Congress printed catalog cards, which may be purchased by other libraries. This card

service, when properly used, can replace much cataloging effort at the
local level, while raising the quality of cataloging. While it is
readily possible to find errors in the cataloging provided by the service,
it is important to emphasize that its use provides uniformity of access
among libraries, and that the error rate is substantially lower (and the
quality of cataloging substantially higher) than that which could possibly
be achieved by most independent libraries regardless of size, even at
enormously increased cost. The service has limitations, because of its
historical background. These are discussed in some detail below. It
may be noted here, however, that these limitations are rapidly disappear-
ing and will disappear even more rapidly if activities at the state level
such as those recommended in this report are undertaken on a wide basis
with intelligent, informed feedback to the Library of Congress and the
American Library Association.

Centralized Technical Services in City Public Libraries

The second form of activity in the technical services which became of
major importance at the turn of the century was part of the development of
city public library systems. Centralized processing and cataloging was
part and parcel of the development of city public libraries, mainly under
the stimulus of Carnegie provision of branch libraries. Because of the
way in which these city libraries developed, it was simply assumed that
the central library administration would carry out all cataloging and
processing activities. The conceptual outlines of this development were
complete by the time of World War I. Oddly enough, perhaps because of the
way they developed and the fact that city libraries are, in the United
States, unified administrative entities, these systems have not been

properly considered as examples of centralized processing in the current
discussion of such services on a federated or cooperative basis.

Yet, despite their deficiencies, they are real examples of the success
of the concept. No city system in the United States or Canada has even
considered decentralization of its technical services, even in the midst
of current trends toward decentralization of other administrative and
policy-making functions to make these libraries more community-controlled
and responsive to community needs. One study, by Ralph Shaw in the 50's,
which concluded that further centralization of the technical services of
the Queensboro, Brooklyn and New York public libraries was not advisable
because it might reach the point of diminishing returns in size, was
considering systems already so much larger in scope than those coopera-
tive or federated efforts which have failed or languished in recent
American library history as not to be in the least comparable. We will
also return to this topic. It is important to note that, whatever the
other many current difficulties, centralization of technical services in
the large city public library systems has been a resounding, long con-
tinuing success. This is true even where historical growth patterns have
hindered such systems from making full use of national cataloging services
or new technology, and is a point which must be emphasized here.

Brief consideration should be given to some additional historical
background. While the northeastern United States was the first to develop
library services, that development was uneven. Public and university
(college) libraries were the earliest to emerge as real services in spite
of early beginnings in school districts in New York State. Despite this,
some of the best public library systems outside the major central cities

are to be found in such states as Maryland, where library development was
slowed for a variety of reasons. This slowness of development, plus the
facts that county, rather than local municipal, government was quite
strong and that counties are comparatively large, meant burgeoning of
public library service after World War II at the county administrative
level. In each case, these counties had unified technical services for
most if not all public libraries at the county level.

School Libraries in the South

School librarianship in the South was equally retarded in its early
development, and, at least in some areas, has enjoyed great growth which
has led to superior administrative systems since World War II or since the
even earlier movement to consolidate school districts. Perhaps the most
advanced school library system in the country at present is that of
Montgomery County, Maryland, where a single school district has one
unified administrative center and uniform technical services for all media
for all schools. Comparatively poor states like North Carolina and Ala-
bama, whatever their other library problems may be, have more opportunity
because of historical circumstances than many other areas of the country
to have more unified technical services for libraries, particularly school
libraries, and have derived substantial benefits from this within existing
financial and other restrictions.

Unified Technical Services in Older States

The movement toward unified technical services in older and more
wealthy states since World War II, or really since Korea, has been start-
ling and in many ways attended by more immediate absolute success because
more funding has been provided than elsewhere. It is not at all sure,

however, whether their position is really better for the coming years.

In contrast, say, to the situation in Maryland, the New York State

pattern of using a separate level of administratively distinct library

units to provide processing, cataloging, and other services for public

libraries in areas approximating the county level, has by no means been so

successful as the Maryland system of overall, administratively unified

service, despite far greater funding in New York.

The reasons for this do not, we feel, necessarily lie totally in

the concept of actual administrative unification of services, although

they may derive from it in the particular circumstances. The Maryland

success in, say, Montgomery, Prince Georges, and Baltimore Counties in

the technical services derives from agreement upon exactly the same

processing and cataloging rules, without deviation at the local level, by

all public libraries, plus an essential unification of all public libraries

in providing services, including interlibrary loan of materials.

Essentially what we are saying is that actual administrative unifi-

cation of libraries may not be at all essential to achieving maximum

efficiency and economy of service, but that acceptance of standard

centralized technical services and of a commitment to unify resources

for service among libraries is. In the New York situation, too many

local libraries are tailoring or altering standard cataloging, or are

not truly committed to unified services. This has, it seems to us,

retarded the implementation of the recommendations of the Nelson Asso-

ciates' report,[1] now several years old, which was in itself designed to

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[1]Nelson Associates, Inc. Centralized Processing for the Public Libraries
of New York State; A Survey Conducted for the New York State Library. New
York, 1966.

correct some of these problems by recommending even larger processing centers further removed from the local level, and a single cataloging center for the state.

We have picked upon the New York State situation not simply because it is familiar to us, but partially because as (paradoxically) the state was comparatively advanced in public library services, the very steps which initially seemed so forward-looking a decade ago now look as if they retard continuing rapid advances.

The New York picture is now further clouded by a development which, without knowledge of historical background, would seem to be a purely progressive step. It is now proposed to integrate school libraries into centralized technical services at a level higher than the county level (the Nelson report proposed six processing centers and one cataloging center for the entire state).

This proposal has unfortunately been linked by subsequent studies with a proposal to readjust school and public library service relationships so that service to children would be left essentially to school libraries and service to adults and post-school youth to public libraries.

The study team does not take any particular position on this concept, except to point out that, in New York State at least, proposing it has exacerbated the already strained relations between school and public libraries to the point where it seems unlikely that the highly desirable unification of technical services for various types of libraries in the state can be accomplished within a reasonable time in the future. Such a dispute between types of libraries is at all costs to be avoided in Indiana where signs of strain already exist.

Centralization by Means of Commercial Services

Another type of centralization of technical services which is often
not considered in discussion of centralization is the use of a commercial
service to provide cataloging and/or processing for an individual library.
Not only does the Library of Congress provide catalog card sets for a fee;
but card services, kit services, and more or less complete processing
services, sometimes including provision of the books or other materials
themselves, are all provided by various commercial firms.

The oldest and best-known of such firms is the H. W. Wilson Company,
which has sold simplified catalog card sets for a limited range of titles,
primarily juvenile, to school and public libraries for many years. On
an ascending scale of complexity of services offered, it might be noted
that the L J card service includes kits (i.e., circulation cards, book
pockets, and spine labels as well as catalog cards), that other firms such
as Bro-Dart have an optional range of services from cards to kits to books
with complete processing, and that wholesalers such as Baker and Taylor
provide a similar range of services for books purchased from them.

These firms are really centralized agencies doing specified services
for a fee, and as such may be compared with some types of library federated
or cooperative systems where the libraries contract for services.
Where a broad range of services is offered, it should be noted that a
"standard" format is usually provided at a given price and that exceptions
to this standard format involve extra charges. In the case of card services,
only the standard format is provided in most cases. Our examination, in
several firms, of the deviations from the firm's standard requested by a
large number of libraries failed to disclose (except in the case of some

large libraries requesting Cuttering) any instance in which we felt the
deviation from the standard resulted in cataloging which was better in
the sense that it was more valuable to the user than the "standard"
offered at a lower price. In numerous instances, we felt that the re-
quested deviations simply added to costs without providing any imaginable
benefit. One example of this may be sufficient: libraries requesting
that subject headings be in red at considerable additional cost.

These commercial services have been growing substantially over the
past decade and show every sign of continuing to grow, despite cutbacks
in federal funding and the concurrent growth of centralized technical
processing as a library function. In a number of instances they actually
serve library processing centers, either across the whole range of services
they offer, for cards, for kits, or for special batches of materials as
when, for example, there is a need to process an entire collection for
a new library. They may provide either (or both) duplicates of Library
of Congress cards or simplified cataloging like that of the Wilson Company.
In the latter case, this is usually derived from Library of Congress copy.

These firms not only provide valuable services in many instances,
either for regular cataloging or as a back-up to local processing for
unusual workloads, they also serve as a yardstick for evaluating local
cost/benefit relations. While it is not pleasant to have to make this
statement, they have served as valuable agents in standardizing practices
where librarians, the national library, and the professional associations
have been slow to do so. Their role in standardization has perhaps been
less than would be useful, and less than might be desirable, because they
have rightly hesitated to assume functions more properly the province of

librarians than of commercial firms serving libraries.

Federated or Cooperative Centralized Processing

Since the publication of the public library standards of 1956, which urged the creation of larger units of service through federation of libraries or cooperative agreements among libraries, a number of processing centers have been founded within these patterns, whether encouraged by massive federal or state aid (as in New York), assisted by state aid, or as self-financed agencies. These operations have been by no means uniformly glowing successes. Studies of them, as well as visits to them and to member libraries indicate their major problems as seen by members to be high cost, failure to meet the cataloging requirements of particular libraries, and their slowness in responding to member library orders with processed books.

These appear, upon examination of a wide range of all types of centralized processing to be more symptoms of problems than the actual problems themselves. Actual problems in centralization of processing are discussed in detail in connection with recommendations.

In summary it might be noted that almost all, if not all, of the differing library approaches to cataloging can be seen in Indiana. There are libraries, still, which do all of their own cataloging without reference to outside information sources, libraries which use and copy Library of Congress entries, libraries which purchase Library of Congress or Wilson or L J cards, libraries which purchase kits, libraries which are served by processing centers through their administrative units, and libraries which are served by non-commercial processing centers.

CHAPTER III

CENTRALIZATION: PROBLEMS AND OPPORTUNITIES

The present-day concerns and problems of centralization of technical

services are clearly not something new. They arise from a greater need

to be able to draw on standardized cataloging copy in order to be able

to cope more effectively with the growing range of titles at all levels,

from the prospects opened by new technology, and from the ever-growing

realization that, especially in the school and public library field, many

of the existing administrative units are simply too small to be able to

manage their own technical services effectively and economically.

Earlier, we noted the expressed problems of librarians using out-

side processing, that is, processing carried on in a center not part of

the library itself. These problems included slowness in receiving

materials and what has been thought of as unsuitability of the catalog-

ing for the needs of the library.

These concerns can be brought more clearly into focus by discussing

the specific problems which emerge from study of centralized services,

and which contribute to failure to join such services on the part of

many libraries.

Many librarians have no real concept of their own internal cataloging

costs and no real feel for cost analysis. Consequently, commercial or

processing center charges may seem high to them, when they are, in fact,

quite reasonable and cheaper than the library's present costs. Similarly,

many librarians do not see that local processing centers often carry out

far more actual processing steps than those provided by the more routine

commercial services, and for a wider range of materials than the routine

commercial services cover; thus, they have justifiably higher costs than
the figure quoted for a non-comparable commercial bid. Further, most non-
commercial centers assume a far broader range of tasks than simple pro-
cessing in the way of producing bibliographic aids and so forth, which
often must be charged for by assigning the costs in relation to the number
of books processed for each member library. The non-commercial centers
are the ideal agency to do far more of this type of work than they do at
present, but seem to be inhibited by these problems of cost allocation.
It is interesting to note that some subsidized centers charge far below
their actual costs to attract member participation, but even so, their
charges are often felt to be "high" because of the lack of realistic
financial sense on the part of their prospective clientele.

Costs of processing in many of the cooperative or federated centers
are often unnecessarily high in fact because of other types of failures
in understanding on the part of the librarians who make up their clientele.
Some centers, instead of requiring agreement on an overall standard by
their members, tailor cataloging and/or processing to individual library
"requirements," thus practically eliminating the possibility of substan-
tial savings over what an individual library can do for itself.

Some member libraries "revise" or add to the work done by the center
in processing their books. This not only seems, in practice, to add sub-
stantial delays to the processing (often blamed on the center), but again
generally negates the cost savings achieved by centralization. We have
visited a number of libraries which so "revise" or "improve" on the work
of processing centers. Many had in their libraries substantial backlogs

public. In no instance, in any of these libraries, have we felt the so-called improvements to be of value to the user. If there are changes which would benefit users, they should be applied by the center for the benefit of all member libraries. We have not found, after a number of surveys, any instances in school or public libraries where cataloging improvements would not benefit all libraries; i.e., there do not seem, at this level at least, to be local needs requiring "tailored" cataloging, although there are evident (and often unfilled) needs for highly local choice in selection of materials for purchase and duplication.

Often real delays in processing centers are occasioned by the failure of participating libraries to realize that, for efficiency and economy, as many copies of an individual title should be ordered and processed at the same time as possible. Part of the resistance to cooperating with the center may arise from confusion of acquisitions policy with selection policy. No center should dictate selection, but any well-run center must have the agreement of its member libraries, for example, to order new titles which they want from Publisher's Weekly within a specified number of days, or to order copies of back (older) titles on some rational cycle basis. Obviously, there must always be exceptions to meet special circumstances and unanticipated needs; but in many participating libraries such special and unanticipated needs seem to outnumber regular orders.

In several centers we have found a failure to anticipate the volume of requests the center would receive. In at least one instance member libraries did not, initially, want to commit all of their processing to the center. When they found that it was working well for the materials

on it. The center was unable to cope, and nearly collapsed. It had delays which were then used by the libraries which had caused them to justify their earlier predictions that the center would not work.

In some centers, transportation difficulties have caused some very real delays in getting processed books to member libraries, and transportation problems should be carefully considered as a center is established. Delays have often arisen because of heavy workloads in processing basic collections for new libraries, and it is evident that very careful scheduling is required if this is not to be the case. In some instances, it might be better to have this type of work done on contract by a commercial firm, since it would be wasteful for a center to maintain excess capacity solely for this purpose.

There has been both reluctance of libraries to join centers, and serious compromise of center efficiency where individual libraries insisted on using particular formats or methods which had grown up in that library: deviations from standard classification, deviations from subject heading lists, and so forth. In some instances, changes would result in at least temporary inconvenience for library staff and users alike. In all of these cases which have come to our attention, however, the library in question would have been in the long run better off if it had made the changes to conform to a more standard practice, regardless of use of the centralized service, and the centralized service made a serious mistake when it agreed to use a non-standard method. Specific examples include a library (in New York) using the 10th edition of Dewey (the current edition is the 18th), a library (in New Jersey) using the 4th edition of

Rue subject heading list for juveniles. In the latter case, we found a
90% match with Library of Congress subject headings for the same books,
and judged the Library of Congress headings to be better for the user in
most cases where differences occurred. In these cases, it is obvious
that 100% savings in classification or subject heading cost could have
been achieved by simply accepting a better and more up-to-date procedure
provided at no cost by the national library.

It is evident that we are strongly convinced of the advantages of
well-run centralized processing over cataloging in most libraries with
single outlets or comparatively small staff. We could not presume to
indicate what the exact cut-off point should be, but certainly 90% or
public and school libraries in Indiana would benefit from such central-
ization where they do not already participate.

Centralization can free librarians in small participating libraries
from cataloging tasks which they usually cannot do well, because the
volume is too small, their attention is divided, or they simply lack
ability and expertise. It can free them to do what certainly should be
their major concern, serving the individualized needs of their clientele
on an individualized basis, doing vital professional work serving readers.

In every case of a well-run center we have seen (Crawfordsville may
serve as an example), average quality of the technical services has
actually increased substantially, even in those instances where some
individualized work has been done for specific libraries. When a standard
has been adopted for the center and accepted by participating libraries, the
average quality of processing and even time of processing has usually im-

this to be the case even in those instances where we found a vocal chorus of librarians in participating libraries complaining about the quality of center work and delays in processing. This does not mean that we always found quality ideal, or delays minimal, only that we did find marked improvement over what most participating individual libraries had previously had.

We have also found that bulk ordering and processing had substantially lowered true costs for a given level of quality wherever the member libraries had positively participated with the center in developing rational, sensible, and flexible order procedures. Centers could set up processing lines, use work simplification, and employ equipment at a level totally impossible for participating libraries.

While we did not find most computerization efforts to be, at least at present, either economic or efficient, we did find that centers have unusual opportunities for sound applications of this sort where individual libraries usually do not. It should be noted here, however, that the computer system used by the Regional Campus Libraries center of Indiana University is, for its purposes, highly efficient, economic, and sound. Despite the fact that it has been little publicized, and that the appearance of output is somewhat crude, this is one of the best designed and most effective computer applications to general library operations in the country today, and all concerned with its inception, implementation, and present highly efficient management are to be congratulated.

One of the advantages usually suggested for centralized processing centers is not, in fact, of really significant importance, at least not

discount rates through higher purchasing power and purchasing in bulk.
The savings achieved by this are not usually significant, at least as
compared to what a moderate-sized, well-run member library might have
achieved on its own. Better buying management can, of course, make very
real differences in prices, compared to those paid, let us say, by a
poorly-run single school library operating on its own.

While the subject of the relationship of acquisitions and selection
has already been briefly mentioned in this chapter, it should have some
further discussion. There are very real fears among many prospective
center member libraries that a center may dictate what member libraries
may order. Indeed, this has actually happened in some city systems with
authoritarian administrative patterns, and in some Southern school li-
brary service centers, not to mention the apparently tight control from
an apparently ineffective centralized processing center in the New York
City school system. The fear that this may happen is either the real
reason, or the reason advanced as an excuse, for the failure of many
existing libraries to join, or to support the establishment of, central-
ized processing centers in their areas.

Our extensive study of such centers has found nothing to support
the idea that there is anything inherent in center operations which would
lead either to censorship or restriction of selection of titles. Our im-
pression is the exact opposite. A California study (Fiske) of some years
ago noted that censorship resulted more often from the fears of librarians
than from outside imposition of restrictions, and that the result of these
fears, judged in terms of what actually appeared on the shelves of libraries

larger ones. Most federated, cooperative, or state-run centers which
we have visited or have had reliable information about have tried (more
or less successfully) to impose or to encourage sensible and economic
acquisitions patterns on the participating libraries, but have leaned
over backwards to avoid imposing selection restrictions of any kind.
In fact, even though they are often in an ideal position to offer con-
sultation to member libraries concerning the selection of materials,
they are usually very cautious about doing so.

It should be bluntly stated here that our observations in Indiana
match those we have made elsewhere, namely that selection in many of the
smaller libraries which would benefit most from centralized processing
is so abysmally poor that moderately enlightened censorship would
probably actually substantially improve their collections by forcing a
broader range of titles from which to select upon the librarian.

It may give added force to this important conclusion if we state
clearly that the consulting team is congenitally and professionally
opposed to censorship in any form.

Although we recognized that many of the staff of such smaller li-
braries lack the educational and other qualifications which they should
have, this indictment of selection in these libraries is not an indict-
ment of the librarians. No librarian, however skilled and qualified,
can on his own keep up with the range of materials of which he must be
aware in order to select wisely to meet the needs of his clientele,
particularly if he is also expected simultaneously to be a cataloger, a
reference librarian, a story-teller, a reader's adviser, an extension

number of skilled and unskilled clerical tasks ranging from typing and shelving to lettering the spines of books.

Thus the very librarians who fear that a center may be a restricting force should welcome it as a liberating one, and should urge it to use all of its resources in the many ways in which it can to share its knowledge and to expand selection opportunities.

Centers function best, of course, when the product is standardized, when duplication of titles ordered is high, when library needs are homogeneous, when cataloging copy is readily and rapidly available and cataloging itself is not unduly complex, when librarians of member libraries are informed and intelligently critical, and when valuable extra aids may be easily developed as by-products of the regular core of work of the center. These are also the requirements of successful mechanization and computerization.

In summary, then, careful examination of a broad range of existing types of centralized cataloging and processing centers, including careful study of their problems and difficulties, has led to a number of conclusions which confirm the recommendations of best existing professional opinion:

1) Smaller libraries cannot afford and are not able to carry out successfully and economically all of the varied aspects of technical services at the local level.

2) In general, whatever problems its use may pose, acceptance and adoption of centrally produced cataloging copy meeting national standards is not only economic, but results in better service to library users than cataloging done on a purely local basis for al-

3) While national standards still leave open gaps requiring
specific decisions to complete the cataloging and processing
operations, it is not only possible but desirable to stan-
dardize these decisions for groups of libraries. It will be
desirable in the future to urge those national institutions
and associations responsible for creating standards, especially
the Library of Congress, through informed user feed-back, to
restrict or eliminate, through specified types of alternatives
which may be defined as clerical operations, the cataloging effort
now required to complete the cataloging process and to improve
the useability of their cataloging copy. Some specific comments
on needs in this area are given in the next chapter.

4) There is considerable resistance among smaller libraries to
creating or joining federated, consolidated, or independent
technical processing centers based upon real, though unjustified,
feelings that these centers may restrict selection, be too ex-
pensive, or produce cataloging and processing which is not suited
to their users, i.e., differs from that which the library is at
present using.

5) While the centralized processing facilities which we have
examined in detail undoubtedly could be improved, they are usually
both more efficient and qualitatively better than the local li-
brary processing which they have replaced. Many of their real
problems are derived from efforts to meet criticisms or special
requests by individual member libraries. when instead they should

CHAPTER IV

FINDINGS AND RECOMMENDATIONS

This section of the report consists of general recommendations, together with justification for them and detailed explanations and comments. These recommendations are made in the light of the preceding sections of the report.

The recommendations do not represent obiter dicta on the part of the consultants, but are rather a reasoned provisional plan. It is not suggested that successful advances in technical services in Indiana libraries require that this particular group of suggestions be followed in detail. Rather, we expect that they may be used as a sensible, workable basic plan for starting from and building upon. We would expect some of the particulars to evolve and change as implementation progresses. We do believe, however, that the recommendations are unusual for reports of this kind in the type of tone, style, and approach advocated: the concepts of beginning simply, of minimizing capital investment except as operations prove themselves, and of focusing attention on the most immediately productive areas as far as service to the people of the state as a whole is concerned.

While the eventual goal for the state should be generalized, centralized technical services for all types of libraries, the experience of other states does not indicate that very large scale attempts to centralize processing for broad groups of types of libraries or for a very wide range of titles on a simultaneous basis are at all desirable. Similarly, experience demonstrates the inadvisability of immediately attempting large-

scale, broad range, "total systems approach" computer applications.

We are recommending that the growth of centralized processing for the state begin with the encouragement of joint school and public library centralized processing for juveniles on an area basis, with coordination from the beginning at the state level of the methods and types of processes adopted, and looking toward, first, consolidation of production of cataloging information for these libraries at the state level and the coordination of processing at the same level, and, later, inclusion of service to other types of libraries. This recommendation has certain similarities to the Nelson Associates' recommendations for New York State, which advocate a single state center for actual cataloging work with six separate processing centers for specific geographic areas. Our recommendation differs in its emphasis on accomplishing this gradually rather than all at once, and in its caveats in regard to computer applications. In making our recommendations as they are given here, we have drawn on our knowledge of attempts to implement the Nelson reports in New York, particularly those of ANYLTS (the Association of New York Libraries for Technical Services), which was designed to be the prototype area center for the state.

We recognize an unfortunate situation in the state (also, unfortunately, not limited to Indiana) in which there is currently considerable fear, suspicion, and actual rivalry between school and public librarians. While it is cheering to note that the best librarians recognize that this situation must not continue, it has, nevertheless, seriously affected school and public library relationships to the detriment of library users. Our observations elsewhere lead us to believe that there must be closer

school and public library relations, that elimination of the services of
one type of library in favor of having the other type serve all young
people is highly unlikely and inadvisable, and that true cooperation is
not only desirable but inevitable. The recommendations of this report,
when implemented, may assist to heal this breach. Consideration of center
provision (with public library participation) of services both for materials
about education and for informational materials for students, teachers, and
school administrators, such as those of the Toronto School Board and the
Calgary and Levittown Public Libraries, might be a service area suitable
for early investigation.

Technical Services Advisory Council

The optimum beginning step would be to establish a Technical Services
Advisory Council to advise the libraries of the state and the Indiana
State Library on matters involving centralization and the development of
new services. This council would initially be composed of representative
school and public librarians. While representatives of college, university,
research, and special libraries should be involved at a later date, we are
recommending an initial focus on school and public libraries because they
provide simultaneously a broad base of operations and a narrower range of
operational problems.

The Technical Services Advisory Council might well be chosen with the
advice and consent of the Indiana Library Association and the Indiana
School Librarians Association, and should work intimately with them and
with the Indiana State Library, seeking the endorsement and assistance of
the associations for its work.

Its initial specific assignment should be the development of highly
detailed specifications for standardized cataloging and processing for
juvenile titles for school and public libraries within the state. Devel-
opment of these standards and specifications is basic to facilitation of
the growth of sound centralized technical processing. Most of these
standardization activities would deal with problems which arise primarily
from historical variations in practice, and with cases in which there is
relatively little difference in the usefulness of one practice as compared
with another, except as the switch to a standard procedure might require
temporary adjustments in local libraries.

Since the council itself will certainly develop its own standardiza-
tion priorities, we feel it advisable here to offer only some suggested
areas for decision, largely to illustrate the kind of problems we have in
mind. For libraries which do not classify individual biographies, the
determinant of preference between 92 and B is likely to be which one the
library already uses. Investigation of which actually predominates in
Indiana should provide the standard. Similarly, Cuttering procedures vary
widely, from nothing (rare, except in fiction) through initial alone, to
use of the full Cutter tables, and practices within any one library often
vary in different parts of the collection. A standard could be set here.
Likewise, a decision to accept the Library of Congress annotated card
format as the cataloging standard for children's materials would not in-
volve serious deviation from past practice in most libraries, would be
in line with current recommendations of the American Library Association,
and would tend to unify juvenile and adult cataloging. Similarly, the
emerging standard for non-book media should be immediately adopted, using

the Riddle text[1] as an interim standard for these materials.

It is important to note here that, while the Library of Congress annotated card represents a very high level of cataloging indeed, it still poses some adaptation problems which cannot readily be solved on a clerical basis, including, for example, appropriate truncation of Dewey classification numbers and elimination of confusing, superfluous (for juvenile use) added entries for illustrators. After consultation with Library of Congress staff on this matter, we find that the lack of informed critical help from the field has prevented the Library of Congress from being as responsive to need as it would like to be. The Technical Services Advisory Council, if it undertakes to provide such feedback on a systematic basis, may not only assist Indiana libraries but may also make an important positive contribution to the national services.

In processing, as distinguished from cataloging, an example of a question which matters solely in terms of a given library's past practice and which should therefore be decided by a representative group of those affected, is the placement of the book card and pocket: back or front of the book, flyleaf or inside covers. So long as one alternative is selected and accepted by all involved, it does not really matter which alternative is used.

Experiences with, for example, recent surveys in New Jersey and in Alberta lead us to conclude that a group of experienced librarians are not only qualified to judge abstractly whether particular standards

[1]Riddle, Jean et al. Non-Book Materials: the Organization of Integrated Collections. Ottawa, Canadian Library Association, 1970.

and procedures are serviceable or not, but having done so, are often surprisingly willing to shift their own procedures to conform. For this reason we would urge wide participation in the process by librarians not on the council. Experience also leads us, however, to urge that the draft specifications for discussion be compiled by one experienced person, consulting others and using as resources, for example, the standard specifications of commercial firms. This person might appropriately be a consultant at the state level. While, in general, a committee does not function well in the creation of a basic document for discussion, the council is really indispensable at the stage of commenting on, altering, and amending this basic document. It is important to provide examples of cataloged and processed materials for the council to consider. The council should seek simplicity in its recommendations, but should note that simplicity does not necessarily imply either truncation of information or intellectual compromise. Accepting Library of Congress card copy as it stands is simpler and provides more intellectual quality than "simplifying" Library of Congress copy for local card production.

It is assumed that the consultant and the council would be quite familiar with the various centralized processing centers in Indiana. It is strongly suggested that they also gather ideas from outside the state by visiting both a commercial firm such as Bro-Dart in Williamsport, Pennsylvania, and a large successful school library center processing all types of media, such as that of the Montgomery County Public Schools in Rockville, Maryland.

Securing Acceptance and Implementation of Standards

One of the first questions which arises when standardization is pro-

have something behind it that will motivate those involved to apply it.

If centralization is to be achieved, state aid to the centralized units

will be essential. This aid, for any operation, must be contingent upon

acceptance of the standards set by the council. Indeed, we feel that

centralization and standardization of technical services, as well as

adequate provision for users to obtain freely both bibliographic infor-

mation and any needed materials from or through their local library

outlets or other libraries in the state, is so vital that state aid should

be devoted as completely as possible to programs leading to achievement

of these aims.

Practical Beginnings

A major processing center already exists (at Crawfordsville) which

might provide the basis for the initial effort to expand centralization

of processing. This first effort might well be based on the center at

Crawfordsville, a center at the State Library, or at some other single

location. If it is administratively easy to accomplish, and if the

Crawfordsville center and its participating libraries are willing, this

center would probably be the best initial base.

The concentration point which we have chosen is, as already indicated,

juvenile materials for school and public libraries. It offers the greatest

immediate practical gain and the fewest immediate practical problems. The

number of titles is comparatively small, and the extent of duplication both

within a given library and among libraries is comparatively high. The

materials pose no significant language problems, and good cataloging copy

is readily available from the Library of Congress for a high and increas-

exist, and the number of active titles ordered retrospectively is very highly limited, and much more duplicative among libraries, than is the case for titles in general public or small college library collections. Despite the fact that most school and public library juvenile collections are comparatively small, they are ubiquitous, and consequently account for a significant percentage of the total number of volumes processed in the state each year, especially if the comparison excludes titles added in the university libraries, where centralization of processing among the libraries on different campuses seems neither particularly desirable or readily attainable.

Juvenile materials also have the property that, while the number of titles is comparatively limited, diversity of form and format are quite great. Indeed, microforms are perhaps the only library form of materials not likely to appear before the high school level is added to the centralization plan. Even these may appear in some elementary and junior high schools already, and they will undoubtedly do so in the immediate future. All other forms, such as magazines, tapes, annuals, slides, film-strips, records, and motion picture films are likely to be present. It is most strongly recommended that all forms of materials be included from the beginning. Many libraries do not know how, or do not have the means, to select, catalog, and process such materials adequately, and need definite encouragement and help, such as could be provided by center facilities, to expand their resources in non-book media.

Since holdings of these materials are still comparatively small, the center will be able rapidly to accumulate a data base that will be immediately useful both as a selection aid and as a source for bibli-

ographic listings for both publication and interlibrary loan purposes.
Purdue, long known for its attention to these materials at the university
level, may be able to offer practical handling suggestions and ideas.

We have discussed this area in some detail not simply because it is
of great importance in itself, but because it also affords an opportunity
to emphasize that the centralized service must, from the beginning, provide
selection aids, bibliographic services, and union list services. It is
important that it publish and distribute copies of its publications widely
both as necessary and desirable services in themselves and as visible
evidences of the competencies and utility of the center.

We have noted that it is important that the centralization activities
be initially subsidized by state aid. Initial subsidization would need to
be quite heavy, both for start-up costs and to underwrite initial low
processing charges. We believe, however, that as centralization develops,
it can be made more and more self-supporting, at least as far as its
basic services in cataloging and processing are concerned. Charges to
users will inevitably rise, and no attempt should be made to conceal this
in any way from prospective users. Some consideration might be given to
a financing system, if this can be made legally possible, like that of the
Bibliotekstjänst (Library Service) in Sweden, which receives state subsi-
dies for intellectual and development work, but pays for everything else
from fees received from libraries. This operation received its initial
capitalization from the state, the national government in this case, but
its subsequent enormous expansion, the addition of new equipment and
services, a new building, and increased staff have all been financed

Some features of the Bibliotekstjänst might well serve as a model

for Indiana center development, even though the Swedish center, growing

from a different kind of background and with greatly different geographical

problems, does not do processing. It does serve as the cataloging center

for school and public libraries, and sells card sets. It produces all

types of bibliographies: from selection lists through attractive leaflets

designed to be distributed to library patrons. It operates a poster ser-

vice, and the fact that it operates for such a large number of libraries

enables it to do quality printing and to utilize the talent of some of

Sweden's top artists. At the same time, its library orientation enables

it to produce posters of the most possible appeal to library users. The

center provides information about and displays of equipment to libraries,

as well as working with furniture and equipment designers from private

firms to develop equipment especially suitable for library needs. It

creates and sells signs and forms, and helps in building design.

Encouragement of Interlibrary Loan

Concurrent with the development of centralization, the effective re-

sources of each public and school library can be expanded by improvement

of interlibrary loan procedures. While the officially-accepted ALA inter-

library loan code may provide a starting point, it is by no means adequate.

For instance, for school and public libraries the requirement that only

out-of-print or difficult to acquire items may be borrowed on interlibrary

loan does not make sense. However, the fear of libraries and their sup-

porting agencies that provision of services to individuals from other

communities which have not in the past taxed themselves to support good

neglect library provision, has a very real basis in fact. Refusal of services does no particular harm to these other communities; however, it does hurt individual users whose needs are very real.

The need in interlibrary loan service is not for restrictive codes, but for procedures which simultaneously assure that the lending library is reasonably compensated for its collection-building efforts, while penalizing the agency which has chosen not to expend its funds in this way. This might take the form of differentials in state aid, preferably worked out by the Technical Services Advisory Council. The ultimate goal would be not only relatively free interlibrary loan, but also a statewide borrower's card, so that interlibrary loan will not be needed when the individual would prefer to get the material for himself.

We are not recommending the setting up of a teletype or facsimile transmission network at the present time. Recent studies of the New York State interlibrary loan network and facsimile transmission, the national interlibrary loan study by Thomson,[1] and the study of interlibrary loan of chemical literature by Chemical Abstracts all confirm previous indications: it is delays occurring after receipt of the request by a lending library, not involving even significant transportation delays, which are the real problem.

For urgent requests, there is always the telephone, which, though it does not provide a written record of the request, is not only significantly cheaper than teletype, but is already available to all libraries.

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[1]Thomson, Sarah Katharine. _Interlibrary Loan Involving Academic Libraries_

What is required is motivation of libraries and librarians to make interlibrary loan easy, prompt, and responsive to patron needs, not new technology to speed those parts of the operation which are not, in many cases, those causing the major delays.

We recommend a system of interlibrary loan, embracing all types of materials, based upon the patterns of interbranch loan in large public library systems, rather than upon those indicated by the American Library Association code, but with state compensation for the lending libraries and with committee or other feedback to borrowing libraries whose borrowing patterns show the need for building their own collections to better serve local users. It should be noted that system formalities should be absolutely minimal, and that prospective borrowers should be served rather than referred elsewhere. It may also be noted here that Xeroxing shorter items is often cheaper (as well as more satisfactory to the requester) than cumbersome loan procedures. The studies referred to above, especially that by Thomson, indicate, too, a need to impress upon librarians that it is their function to serve all users, not to make judgments either about the user himself or the value of the materials he is requesting.

Further Development of Center Services

As soon as the basic cataloging and processing services are beginning to function centrally, new services should be developed. Again, particular recommendations in this section may well be altered as experience indicates the need for a shift in priorities. Some of these services imply computer use if they are to be at all economic; detailed discussion of computeri-

One service which would be of immediate value, can be offered on an ad hoc basis, and need involve no commitment to computer systems, is the provision of lists of useful materials in all media on topics of current concern. Examples come quickly to mind: urban problems, minorities, legislative reapportionment, ecology. These lists, supplied in quantity, will provide a highly visible service to remind local libraries that the center is there to serve them.

A selective dissemination of information (SDI) system, developed from the experimental work at Crawfordsville by Davis and Hiatt,[1] is a logical area on which to base local computer experience and practice. An extremely simple program set could be readily written to take cards with author, brief title, and class number as input, representing items ordered and/or accessioned, and used to print individually tailored lists for member libraries interested in particular topic areas, for teachers, and for individual users as in the original experiment. Such a service is highly visible, low in cost, and high in impact.

Serious consideration should also be given to the production of various types of table of contents listings, which have been highly successful both as commercial ventures and as services in information centers in science and technology. Productive and useful examples of this kind of tool might include two which have been well-received in similar situations: tables of contents of library publications for the staffs of member libraries (issues may be tailored to specific library types), and

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tables of contents of journals in education for teachers and school administrators. There should be backup service for rapid provision of photocopied articles on demand. Only photocopy and offset machines are required, and the service is highly visible and immediately useful. If the service is initially free, and then charged for at out-of-pocket cost excluding overhead, it is so cheap as to be virtually self-supporting. This pattern might also be followed for other services developed by the center.

The center might well look forward to development of specialized indexes of particularly local value, a selective index to Indiana materials, for example. Later developments might include indexes to fill gaps in existing services; there is no up-to-date index, for example, to the folk tale collections held by most juvenile libraries. Such indexes would not only be locally but nationally useful. Initial restriction of center operations to juvenile materials makes many of these service projects of a size to be easily managed.

All of the special and regular services mentioned that involve computing are designed to be simple, so that they are comparatively easy to program and can be used as self-teaching projects for center staff. In addition, they are deliberately designed to be fail-safe in that they are either additional new services which need not be in production by any particular deadline, or are functions adequately backed up by manned systems until the newer procedure is thoroughly debugged.

There is now significant disillusionment about library computer applications. The recent articles by Ellsworth Mason in _Library Journal_

pp. 183-196) are a devastating case in point. We would agree with Mason's animadversions and even with his conclusions, except that his observations seemed to be limited to major university systems and even there to exclude successful information center work or projects, such as the Indiana University Regional Campus Libraries' operation. Large-scale, quite successful governmental enterprises, such as Index Medicus, and commercial enterprises, such as PANDEX, demonstrate clearly that computer information handling can not only be extremely useful, but often the only economic way to produce some information services. Industry has found a very broad range of new types of computer-based information services to be useful and to have a favorable cost/benefit ratio. We conclude that university libraries have, by and large, failed (as Mason sees it) both because they have tried to begin with very large, very complex tasks, and because they have placed too much emphasis on automation mimicking procedures originally designed for people to carry out. Our recommendations are designed to avoid these problems.

Computer Applications

This section assumes some degree of centralization of technical services; only in very exceptional circumstances is the effort and expense involved in computer use warranted for small individual libraries. The advice to start in a small way with services promising immediate payoff is especially applicable here. Personnel, both computer people and librarians, will have to learn from experience just how the new technology may best be applied to libraries. In particular, the librarians will need to learn the capabilities of computers and their requirements for rigorous analysis

learning on some job where the investment and the time lags before results are visible are not too enormous. In no case should the goal be simply to automate what has always been done or to automate the total system at once.

A number of technical services procedures have been automated as first attempts elsewhere, and our recommendations for possible early computer applications derive to considerable extent from the results of such attempts, placed in the context of conditions in Indiana libraries.

The highly touted remote-access, on-line, real-time systems with terminals at each input location are, to put it mildly, still in the experimental stages. We are assuming that for the foreseeable future all really viable general library computer applications will be of the type in which batch input at only a few locations will pay off for all. One key to success in use of computers is usually the use of a single input keying to produce a variety of outputs. In addition it is usually preferable to begin with operations which do not require the keying of a large backfile before they may even be begun.

Given these constraints, plus the obvious one that Indiana libraries are unlikely to have available the equivalent of an IBM 360/91 for many years, certain possibilities may be eliminated immediately.

Circulation Systems

A common first effort is the automation of circulation systems, but this area is not a good one for a number of reasons. First, circulation files must be as up-to-date as humanly possible, and in many small- to medium-sized libraries where the file for the current day's transactions

most recent transaction. While this kind of up-to-dateness is theoret-

ically possible to achieve in an on-line system, such systems still have

a way of becoming inoperative at inconvenient moments, not to mention the

impossibility of financing terminals and line charges for each library.

A batch system means that records are always out-of-date by at least a

day, and usually more; in the present circumstances it would also mean

the transporting of circulation records from each library to a central

point. Finally, to run a computerized circulation system means that

every book that circulates must have a machine-readable record at the time.

No matter what compromises may be adopted, a major input effort is re-

quired even to get started, and given the size of this effort even to get

the data required for circulation purposes into machine-readable form, it

is highly unlikely that the additional data required for other uses would

also be keyed. Thus, for later phases, data for the same materials

would have to be keyed a second time. Furthermore, a well-designed manual

circulation system can be very inexpensive, so inexpensive that savings

from computerization would be minimal. While automation of some circu-

lation systems has been shown to result in savings over the previous

inefficient manual system, there is no evidence that the same or even

greater savings could not have been achieved by redesign of the manual

system.

An automated circulation system may well be developed later. Ad-

vancing technology should overcome some of the existing problems, in-

cluding the lack of suitable input equipment, and the gradual processes

recommended below will in time produce machine-readable data for an

now make automated circulation systems impractical should decrease in importance.

MARC Tapes

A second area where immediate action is not recommended is the use of MARC tapes for actual production purposes. While MARC will almost certainly be the standard of the future, it is inordinately complex, and a number of institutions have found great difficulty in working with the tapes. We would recommend that some organization in the state, preferably the State Library, acquire samples of the MARC tapes, at least, and begin to develop a working familiarity with the MARC format, so that productive use will be possible later on when the MARC service may be expected to have improved significantly. One goal should be to develop procedures for reformatting and simplifying the information on the tapes to suit Indiana needs, and to develop formats for local input of bibliographic information such that the two will be compatible. This does not mean that keying should be done in the MARC format; this is an enormously expensive procedure. What we do advise is that procedures for local input of information be so devised that later it will be possible to combine these records with reformatted and simplified records derived from the MARC tapes. This would mean, for example, devising main entries that could eventually be used interchangeably with those from national sources. If short-run expedients such as truncation on input of authors and titles are used, reuse of this same data with MARC data will be complicated, if not impossible. Truncation on output to meet a specific need is of course another matter.

Routine Tasks

A good place to begin with computer applications is with the more routine, repetitive tasks. These are more easily formalized and are performed more often, so that payoff can be fairly rapid. At the same time, library personnel at all levels have an opportunity to learn about the possibilities of automation and to overcome any fears of computers they may suffer from. Also with regard to personnel, all involved should be aware that automation does not save money by eliminating jobs, and that no one will be displaced by a computer. Many people, on the contrary, will be able to perform at a higher level, since they will no longer have to perform so many routine operations.

We have found that usually the best place to begin with what might be called the housekeeping tasks is the order process. At first, the libraries served by a processing center may send orders to the center in much their usual fashion. The center would then consolidate these orders and send them on to jobbers and publishers. As the routines are worked out, the center first begins to key into machine-readable form the orders as they are received from the member libraries; computer processing then produces order lists to go to vendors, plus records needed at the center, and later, claims and other special outputs of the order process.

Applications may be extended both forward and backward from this point. Instead of filling in order forms, local libraries may periodically receive from the center decks of cards for the recommended titles in sources which may be expected to list those items which form the bulk of juvenile purchases. This deck serves as a selection list; the local

titles of which only a single copy is desired with the appropriate
indication at the front of the deck of cards; other titles are similarly
grouped according to the number of copies desired. These cards would be
returned to the center, which then, after gang-punching them for number
of copies, produces order lists automatically.

If a record of its orders is needed by an individual library, a
printout of the selection deck might accompany the deck itself, and the
actual scanning of titles could be done from the printout.

This system would not necessarily be used exactly as detailed above;
the attempt is to show one very simpleminded means of operation of the
system.

The purpose of automation is to simplify procedures and reduce work-
loads; if this fact is kept in mind as a criterion throughout the design
of any system, then many later problems can be avoided.

The selection list, in whatever form, would be an aid to, not a
limitation on, selection by individual libraries. While processing charges
for materials ordered from the list within a set time limit may well be
lower to reflect lower costs of keying and bulk ordering, individual
libraries must be able to order any title.

Obviously, the special needs of school libraries must be taken into
account in development of selection procedures and lists, both in choice
of items and in the time intervals set for ordering. Many understaffed
school libraries should find it feasible to move away from the once-a-year
ordering pattern by using center services.

Cataloging Services

apply to the recommended single cataloging center. When orders are re-
ceived at the area processing centers, suitable notification information
may be sent on to the cataloging center, which may, at least for
materials on the selection listings, already have cataloging information
available. When LC cataloging copy is available at this point, the cards
may be reproduced immediately. For those materials for which LC copy is
not immediately available, brief original cataloging may be done, and the
cards computer-produced for each library, roughly pre-sorted into alpha-
betical order for filing. The Indiana University Regional Campus Li-
braries' operation provides an excellent model for this procedure.

Spine labels and book cards and pockets, plus accessions lists, may
be computer-produced from the ordering data, since, for a large proportion
of juvenile materials, full cataloging information is likely to be avail-
able at the time of ordering.

Conclusion

We realize that this report proposes a somewhat unusual pattern of
development for library services in Indiana to take. We have focused on
juvenile services first, and we have suggested both a more gradual ap-
proach and a (at least apparently) less sophisticated and less automated
approach than have similar studies for other states. We consider this to
represent not a criticism of the conclusions of other studies but rather
a logical development from the experiences of implementing centralized
processing in other states. We have been able to observe the problems
arising in the implementation efforts of, for example, NELINET (the New
England Library Network), ANYLTS (Association of New York Libraries

At the same time, we have sought to bring to bear on Indiana's problems the experience of centers and services about which there is less description in the literature, in some cases, perhaps, because successful achievement left little time to write, in others because the administrators of the system did not realize how important their work was and that written reports would be useful to others, and, in at least one case (Calgary), the feeling that the work completed was still too developmental to justify publication.

We feel that Indiana, because of its valuable preliminary work on union listings, the experience of the Crawfordsville center, the excellent simple computer applications in the Indiana University Regional Campus Libraries center, and the early and continuing pioneering cooperative Lake County experimental work, is in an unusual position not only to improve library services on a state-wide basis, but also to contribute to national solutions. The gradual approach recommended here can, we are sure, grow more rapidly into true state-wide services of direct value to most library users, than an attempt to tackle all problems, particularly computerization of the entire range of difficult bibliographic materials, at once. We urge most of all a concept which we have found not at all foreign to Indiana librarians, a focus on the library user and a focus on service.

SUGGESTED STEPS IN IMPLEMENTATION

1) Appointment of a Technical Services Advisory Council.

2) Development of standards for cataloging and processing of juvenile materials.

3) Development of a financial pattern for center establishment and maintenance.

4) Choice of a center; development of routines; solicitation of members.

5) Initial production for current juvenile titles.

6) Establishment of cycle ordering procedures for retrospective titles.

7) Issuance of acquisitions lists as selection aids, especially for non-book media.

8) Development of a simple, computer-based order and accounting system, perhaps adapting programs from Indiana University Regional Campus Libraries.

9) Encouragement of interlibrary loan; development of annuals and serials order lists for selection; development of a union list for juvenile collections in the area; development of selective dissemination adapted to children's services and school libraries on the pattern of the Davis and Hiatt SDI experiment.

10) Further development of computer-based listings; work on exhibit collections for selection purposes; appointment of selection aids committees.

11) Establishment of second (and other) centers limited to physical processing, drawing cataloging information from the initial center; provision of centralized listings from the main center and decentralized services (exhibit collections, etc.) in each area center.

12) Expansion of services to include high schools; continuing development of listing and bibliographic services.

13) Expansion of services to cover cataloging and processing of all member public library titles at all levels (if Crawfordsville were selected as the main center, it would, presumably, adapt its present services to public libraries to the new standard as rapidly as possible).

14) Concurrently with the above, active development of other new
services, working always for rapid, effective response to individual
user needs, and for preparation of materials to meet broad antici-
pated needs. The capabilities of the telephone and of Xerography
should be thoroughly exploited.

15) Inclusion of other types of libraries. It will be noted that
university and special libraries will probably never be included
for most services, but that college, junior college, and independent
schools should be.